



AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An optical resonator comprising:

a first substrate and a second substrate which face each other, the first substrate having a flat main surface on the side facing the second substrate and the second substrate having a concave portion at a central portion of said second substrate and a flat portion surrounding the concave portion on the side facing the first substrate, a radius of curvature and a diameter of the concave portion of the second substrate providing a desired cavity length and a diameter of a light beam to be captured in the optical resonator;

a first reflective mirror provided on the main surface of the first substrate; and

a second reflective mirror [provide] provided at least on the surface of the concave portion, said second reflective mirror having a point where a normal of the first reflective mirror on the first substrate perpendicularly intersects the second reflective mirror on the second substrate,

wherein the main surface of the first substrate and the flat portion of the second substrate are [bondable] bonded to cause light to resonate reliably.

2. (Currently Amended) A laser oscillator comprising:

a solid-state laser medium for producing an emission spectrum having a width;

a substrate which is bonded to the solid-state laser medium and which has a concave portion and a flat portion surrounding the concave portion on the side facing the solid-state laser medium;

a first reflective mirror provided on or adjacent to a main surface of the solid-state laser medium on the side opposite to the substrate; and

a second reflective mirror provided at least on the surface of the concave portion of the substrate,

wherein the first and the second reflective mirrors serve as a laser resonator, and

wherein single-longitudinal-mode oscillation is achieved when the longitudinal mode interval is more than about one-fifth and less than several times the width of the emission spectrum obtained by the solid-state laser medium.

3. (Original) A laser oscillator according to Claim 2, wherein the first reflective mirror is provided on the main surface of the solid-state laser medium.

4. (Original) A laser oscillator according to Claim 2, wherein the first reflective mirror is provided on another substrate which is bonded to the main surface of the solid-state laser medium.

5. (Previously presented) A laser oscillator comprising:

a solid-state laser medium;

a substrate which is bonded to the solid-state laser medium and which has a concave portion and a flat portion surrounding the concave portion on the side facing the solid-state laser medium;

a first reflective mirror provided on or adjacent to a main surface of the solid-state laser medium on the side opposite to the substrate; and

a second reflective mirror provided at least on the surface of the concave portion of the substrate,

wherein the first and the second reflective mirrors serve as a laser resonator,

wherein the free spectral range $\Delta\lambda_{\text{FSR}}$ of the laser resonator is larger than the half-width at half-maximum $\Delta\lambda$ of the emission spectrum of the solid-state laser medium.

6. (Previously presented) A laser oscillator according to Claim 5, wherein the first reflective mirror is provided on the main surface of the solid-state laser medium.

7. (Previously presented) A laser oscillator according to Claim 5, wherein the first reflective mirror is provided on another substrate which is bonded to the main surface of the solid-state laser medium.

8. (New) The laser oscillator as set forth in claim 2, wherein an optical path L and a free spectral range of said laser oscillator provide a longitudinal mode interval of the laser resonator that is equal to a square of the wavelength of light which resonates in the laser resonator divided by twice the optical path length L .